What is claimed is:

1. A heat sink assembly comprising:

a heat conduit; and

a block formed of a thermally conductive material having a first thermal conductivity,

the heat conduit extending through a substantial portion of the block,

the heat conduit having a second thermal conductivity greater than the first thermal conductivity.

2. The heat sink assembly of claim 1, wherein the first thermal conductivity is greater than or equal to about 10.

3. The heat sink assembly of claim 2, wherein the first thermal conductivity is less than or equal to about 100.

4. The heat sink assembly of claim 1, wherein the heat conduit is adapted to transfer heat from a heat source along its length.

5. The heat sink assembly of claim 4, wherein the block is adapted to transfer heat away from the heat conduit.

6. The heat sink assembly of claim 1, wherein the block has a first segment on one side of a portion of the heat conduit, and the block has a second segment on another side of the portion of the heat conduit,

the first segment having a first heat conduction distance to dissipate heat from the heat conduit, and the second segment having a second heat conduction distance to dissipate heat from the heat conduit.

7. The heat sink assembly of claim 6, wherein the first and second heat conduction distances are substantially the same.

8. The heat sink assembly of claim 7, further comprising a second heat conduit extending through another substantial portion of the block.

9. The heat sink assembly of claim 8, wherein the block has a third segment on one side of a portion of the second heat conduit, and the block has a fourth segment on another side of the portion of the second heat conduit,

the third segment having a third heat conduction distance to dissipate heat from the second heat conduit, and the fourth segment having a fourth heat conduction distance to dissipate heat from the second heat conduit.

10. The heat sink assembly of claim 9, wherein each of the first, second, third, and fourth segments have airflow channels extending therethrough.

11. The heat sink assembly of claim 5, wherein the block has airflow channels to provide surfaces on the block exposed to airflow.

12. The heat sink assembly of claim 1, wherein the thermally conductive material comprises a non-metallic material.

13. The heat sink assembly of claim 1, wherein the thermally conductive material comprises a thermally conductive polymer.

14. The heat sink assembly of claim 13, wherein the heat conduit comprises a heat pipe.

15. The heat sink assembly of claim 13, wherein the heat conduit comprises a tubular structure having a bore through which fluid is adapted to flow to transfer heat.

16. The heat sink assembly of claim 1, further comprising plural other heat conduits extending through respective substantial portions of the block.

17. The heat sink assembly of claim 1, wherein the heat conduit has a first portion and a second portion angled with respect to the first portion, the first portion adapted to contact a surface of a heat source.

18. The heat sink assembly of claim 17, wherein the block has a vertical axis and a horizontal plane formed by two axes, the first portion of the heat conduit extending generally along the horizontal plane, and the second portion of the heat conduit extending generally along the vertical axis.

19. The heat sink assembly of claim 18, wherein the second portion has a shape selected from the group consisting of: generally straight, generally S-shaped, and shaped as a loop.

20. The heat sink assembly of claim 18, further comprising a second heat conduit extending through another portion of the block, the second heat conduit having a first portion extending generally along the horizontal plane and a second portion extending generally along the vertical axis.

21. The heat sink assembly of claim 18, wherein the block has a first side edge, the second portion of the heat conduit a first distance from the first side edge, the first distance being a heat conduction distance of a first segment of the block, the first segment of the block to dissipate heat from the heat conduit.

22. The heat sink assembly of 21, further comprising a second heat conduit extending through another substantial portion of the block, the second heat conduit having a first portion extending generally along the horizontal axis and a second portion extending generally along the vertical axis, the block having a second side edge, the second portion of the second heat conduit a second distance from the second edge, the second distance being a second heat conduction distance of a second segment of the block, the second segment to dissipate heat from the second heat conduit.

23. The heat sink assembly of claim 22, wherein the block has airflow channels through at least the first and second segments.

24. A method of dissipating heat from a component, comprising:

providing a block formed of a thermally conductive material having a first thermal conductivity; and

extending an elongated heat conduit through a substantial portion of the block, the elongated heat conduit having a second thermal conductivity greater than the first thermal conductivity.

25. The method of claim 24, wherein extending the elongated heat conduit comprises extending a heat pipe.

26. The method of claim 24, wherein providing the block formed of the thermally conductive material comprises providing the block formed of a thermally conductive polymer.

27. The method of claim 24, further comprising extending another elongated heat conduit through another substantial portion of the block.

28. The method of claim 24, further comprising:

providing a first segment of the block on one side of a portion of the elongated heat conduit to dissipate heat from the elongated heat conduit; and

providing a second segment of the block on another side of the portion of the elongated heat conduit to dissipate heat from the elongated heat conduit.

29. The method of claim 28, further comprising providing airflow channels through the first and second segments.

30. The method of claim 29, wherein the block has a horizontal axis and a vertical axis, the portion of the elongated heat conduit extending generally along the vertical axis.

31. A system comprising:

a component; and

a heat sink thermally contacted to the component,

the heat sink having a block formed of a thermally conductive material, the heat sink having a first segment and a second segment,

the heat sink further having a heat conduit extending through the block between the first and second segments, the first segment to transfer heat away from the heat conduit in a first direction, and the second segment to transfer heat away from the heat conduit in a second direction.

32. The system of claim 31, wherein the heat conduit comprises a heat pipe.

33. The system of claim 32, wherein the thermally conductive material comprises thermally conductive polymer.

34. The system of claim 31, wherein the thermally conductive material has a first thermal conductivity, and the heat conduit has a second thermal conductivity greater than the first thermal conductivity.

35. The system of claim 34, wherein the first thermal conductivity is in a range between 10 and 100.

36. The system of claim 31, wherein the heat sink further comprises airflow channels extending through the first and second segments.

37. The system of claim 31, wherein the block further has a third segment and a fourth segment, the heat sink further having a second heat conduit extending between the third and fourth segments.

38. The system of claim 37, wherein the thermally conductive material comprises thermally conductive polymer.

39. The system of claim , wherein the heat conduits comprise heat pipes.